RE: TSS SWMM output
Lisa Kusnierz to: Makus, Erik 02/10/2012 03:12 PM

Yeah, he initially gave me those other numbers too. Thanks for the land use info. If I only apply the reduction to the non-residential proportion of the watershed, it comes out to a 37% reduction. If what we think Christian did to get the 702,324 lbs makes sense, I guess I could make it even easier on myself and just take the reduction (50%) between that and the permit benchmark load to get the WLA and relate that to the literature values for BMP effectiveness....

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"Makus, Erik" Hi Lisa, I am going to have to talk to Christian on... 02/10/2012 02:59:28 PM

From: "Makus, Erik" <EMakus@mt.gov>
To: Lisa Kusnierz/MO/R8/USEPA/US@EPA
Date: 02/10/2012 02:59 PM
Subject: RE: TSS SWMM output

Hi Lisa,

I am going to have to talk to Christian on Monday - the values he has listed below are not the values from the model (or even the mid-range values between the literature model and the permit model). I think he may have incorporated the DMR results into this? I will have to talk to him.

Model results:
literature EMCs TSS (lb/year): 576,000
permit benchmarks TSS (lb/year): 342,000

Meanwhile, here is the land use for Bozeman Creek watershed within the City limits.

-----Original Message-----
From: Lisa Kusnierz [mailto:Kusnierz.Lisa@epamail.epa.gov]
Sent: Friday, February 10, 2012 2:33 PM
To: Makus, Erik
Subject: Fw: TSS SWMM output

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----- Forwarded by Lisa Kusnierz/MO/R8/USEPA/US on 02/10/2012 02:32 PM -----

From: "Schmidt, Christian" <CSchmidt2@mt.gov>
To: Lisa Kusnierz/MO/R8/USEPA/US@EPA
Date: 01/30/2012 10:54 AM
Subject: TSS SWMM output

Lisa,

Based on the DMR data and a land use analysis performed by Erik Makus, I split the model results between the NURP benchmark (Permit benchmarks) and the literature EMC values. The land use to each point (DMR) was markedly different so I grouped the sub-basin based on the land use characteristics and then summed the model results.

Average Summer (lbs/summer)

	TSS	TN	TP
Bozeman Creek	54595.11	980.52	167.22
Bridger Creek	1740.84	27.88	5.69
East Gallatin	291095.65	4678.69	747.03

Average Annual (lbs/year)

	TSS	TN	TP
Bozeman Creek	702324.33	12978.07	2105.39
Bridger Creek	20990.65	335.85	68.85
East Gallatin	4561410.14	72793.00	11185.81

These table reflects the grouping. You can see that the numbers fall in between the two model runs with different EMC values.

Let me know if you have any questions. These are the loads that I will use to estimate the summer loading from the MS-4.

Based on our meeting last week, the WLA =0 but percent reductions will be requested based on BMP implementation.

Christian

Christian Schmidt
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[attachment "BozemanCreekLandUse.xlsx" deleted by Lisa Kusnierz/MO/R8/USEPA/US]